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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,873	03/19/2001	Joseph Rinchiuso	CE08604R	1255

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EXAMINER	
FOX, JAMAL A	

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/812,873	RINCHIUSO, JOSEPH	
	Examiner	Art Unit	
	Jamal A Fox	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,5,8-10,13,17 and 20* is/are rejected.

7)☒ Claim(s) *2,3,6,7,11,12,14-16,18 and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: In the Abstract of the Disclosure, line 8 after "The", "poling" should be changed to --polling--. In the Detailed Description of the Drawings, page 6 line 20 after "adjust", "poling" should be changed to --polling--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 4, 5, 8, 10, 13, 17 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Wright (U.S. Patent No. 6,134,231).

Referring to claim 1, Wright discloses a method for reducing interference within a communication system, the method comprising the steps of: polling (polling, col. 8 lines 35-50) a remote unit (mobile stations, col. 8 lines 30-50) for status (status, col. 8 lines 42-50) information at a first rate (frequencies, col. 5 lines 1-18); determining a channel condition metric (puncturing time period, col. 3 lines 29-40) for an uplink channel (uplink, col. 8 lines 42-50); and polling (polling, col. 8 lines 35-50) the remote unit for status (status, col. 8 lines 42-50) information at a second rate (frequencies, col. 5 lines 1-18), wherein the second rate is based on the channel condition metric for the uplink channel (col. 7 lines 1-10).

Referring to claim 4, Wright discloses the method of claim 1 further comprising the step of receiving status (status, col. 8 lines 42-50) information from the remote unit at the second rate.

Referring to claim 5, Wright discloses the method for reducing interference within a communication system, the method comprising the steps of:

transmitting data (control flags, col. 8 lines 40-45) to a remote unit (mobile stations, col. 8 lines 40-45) via a downlink (downlink, col. 8 lines 40-45) channel; polling (polling, col. 8 lines 35-50) the remote unit (mobile stations, col. 8 lines 30-50) for status (status, col. 8 lines 42-50) information regarding the transmitted data, wherein the step of polling takes place at a first polling rate (frequencies, col. 5 lines 1-18); determining a channel condition metric (puncturing time period, col. 3 lines 29-40) for an uplink channel; and polling (polling, col. 8 lines 35-50) the remote unit for the status (status, col. 8 lines 42-50) information at a second rate (frequencies, col. 5 lines 1-18), wherein

the second rate is based on the channel condition metric (puncturing time period, col. 3 lines 29-40) for the uplink channel.

Referring to claim 8, Wright discloses the method of claim 5 further comprising the step of receiving status (status, col. 8 lines 42-50) information from the remote unit at the second rate.

Referring to claim 10, Wright discloses a method comprising:

sending status (status, col. 8 lines 42-50) information to a radio access network (RAN) (inherent, the frequencies are radio frequencies) at a first rate (frequencies, col. 5 lines 1-18); determining a channel condition (busy or is reserved, col. 8 lines 42-50) of a downlink channel; and sending status information to the RAN at a second rate (frequencies, col. 5 lines 1-18) based on the channel condition (busy or is reserved, col. 8 lines 42-50).

Referring to claim 13, Wright discloses an apparatus comprising:

A control unit having a channel condition metric (puncturing time period, col. 3 lines 29-40) as an input and outputting a polling rate (frequencies, col. 5 lines 1-18); a timer (timer, col. 7 line 55 – col. 8 line 11 and col. 9 lines 5-43) having the polling rate as an input and outputting a command at the polling rate (frequencies, col. 5 lines 1-18); and transmission circuitry (mobile station, col. 6 lines 50-55, col. 7 lines 10-15 and col. 8 lines 55-60) having the command as an input and outputting a polling message (message, col. 8 lines 60-65 and col. 9 lines 30-35) to a remote unit at the polling rate (frequencies, col. 5 lines 1-18).

Referring to claim 17, Wright discloses an apparatus comprising:

A control unit having a channel condition metric (puncturing time period, col. 3 lines 29-40) as an input and outputting a transmit rate (frequencies, col. 5 lines 1-18); a timer (timer, col. 7 line 55 – col. 8 line 11 and col. 9 lines 5-43) having the transmit rate (frequencies, col. 5 lines 1-18) as an input and outputting a command at the transmit rate (frequencies, col. 5 lines 1-18); and transmission circuitry (mobile station, col. 6 lines 50-55, col. 7 lines 10-15 and col. 8 lines 55-60) having the command as an input and outputting a status (status, col. 8 lines 42-50) message to a radio access network (RAN) (inherent, the frequencies are radio frequencies) at the transmit rate (frequencies, col. 5 lines 1-18).

Referring to claim 20, Wright discloses the apparatus of claim 17 wherein the channel condition metric (puncturing time period, col. 3 lines 29-40) is a channel condition metric for a downlink channel (forward, col. 4 lines 15-18 and Fig. 4).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strodtbeck et al. (U.S. Patent No. 5,485,464).

Referring to claim 1, Strodtbeck et al. discloses a method for reducing interference (reduce interference, col. 5 lines 1-15 and col. 9 lines 13-28) within a communication system, the method comprising the steps of: polling (polling, col. 9 lines

15-20) a remote unit (terminal, col. 9 lines 13-28) for status information at a first rate (first frequency, col. 3 lines 10-15); determining a channel condition metric (strongest frequency determined by the fewest measured bit errors, col. 3 lines 40-45); and polling the remote unit for status information at a second rate (second frequency, col. 3 lines 15-20), wherein the second rate is based on the channel condition metric (strongest frequency determined by the fewest measured bit errors, col. 3 lines 40-45), but does not explicitly teach of determining the condition metric for an uplink channel. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the condition metric being for an uplink channel because the downlink frequencies are continually being monitored (col. 3 lines 34-45). Each remote unit scans through the downlink frequencies in order to determine when to use the uplink channels.

6. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan et al. (U.S. Patent No. 5, 274,841).

Referring to claim 5, Natarajan et al. discloses a method for reducing interference within a communication system, the method comprising the steps of: transmitting data to a remote unit via a downlink channel (col. 3 lines 30-35); polling (polling, col. 10 lines 23-31) the remote unit for status information (status information, col. 10 lines 45-50) regarding the transmitted data, wherein the step of polling takes place at a first polling rate (frequency, col. 10 lines 14-23); determining a channel condition metric (priority, col. 10 lines 14-23) for an uplink channel; and polling the remote unit for the status information (status information, col. 10 lines 45-50), wherein the rate is based on the

channel condition metric (priority, col. 10 lines 14-23) for the uplink channel, but does not explicitly teach of polling at a second rate. However it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included polling the remote unit for status information at a second rate to the invention because the mobile units are being polled with variable frequency (col. 10 lines 14-23).

Referring to claim 9, Natarajan et al. discloses the method of claim 5, wherein the step of polling the remote unit at the second rate but does not explicitly teach of comprising the step of polling the remote unit at a higher rate when the BER is high. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the step of polling the remote unit at a higher rate when the BER is high because the polling techniques that are used in Natarajan et al. are adaptive (col. 10 lines 14-23). The priority traffic can be the traffic with a high BER, therefore it may be polled more often than others.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Natarajan (U.S. Patent No. 5,239,673).

Referring to claim 5, Natarajan discloses a method for reducing interference (interference col. 5 lines 10-15 and 20-25) within a communication system, the method comprising the steps of: transmitting data to a remote unit via a downlink channel (downlink, col. 7 lines 15-25); polling the remote unit for status (response, col. 7 lines 20-25) information regarding the transmitted data, wherein the step of polling takes place at a first polling rate (first frequency, col. 4 lines 35-45); and polling the remote unit for the status information (response, col. 7 lines 20-25) at a second rate (second

frequency, col. 4 lines 40-45), but does not explicitly teach of determining a condition metric for an uplink channel. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included a condition metric to the invention because after polling takes place, high priority messages are transmitted to stations on the network. The priority of the messages are the condition metric.

Allowable Subject Matter

8. Claims 2, 3, 6, 7, 11, 12, 14-16, 18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 305-3988, (for formal communications intended for entry)

Or:

(703) 305-3988 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA. 22202, Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal A. Fox whose telephone number is (703) 305-5741. The examiner can normally be reached on Monday-Friday 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (703) 305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Jamal A. Fox

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